"pneumatically" which clearly was erroneous. It is believed that the claims, as amended, clearly are not objectionable as lacking sufficient antecedent basis for limitations in the claims. Accordingly, it is respectfully submitted that claims 1-7, 11-19 and 26-27 are definite and distinctly claim the subject matter which Applicant regards as his invention.

Applicant traverses and respectfully requests reconsideration of the following claim rejections under 35 USC 103(a):

(a) claims 1, 5, 6, 11 and 15-24 as unpatentable over Dennison, Jr. et al (5,212,595) in view of Ohsawa (4,905,668);

(b) the rejection of claims 2, 3, 12-14 and 26-27 as unpatentable over Dennison, Jr. et al in view of Ohsawa, further in view of Yonezawa et al (5,008,534);

(c) the rejection of claim 4 as unpatentable over Dennison, Jr. et al in view of Ohsawa and further in view of Lucey et al (5,808,813);

(d) the rejection of claim 7 as unpatentable over Dennison, Jr. et al in view of Ohsawa and further in view of Yata et al (3,967,056);

(e) the rejection of claims 20-23 as unpatentable over Sasaki et al (5,701,206).

It is clear that the Dennison, Jr. et al '595 and Sasaki et al '206 are the main references. However, neither of them anticipates or teaches Applicant's invention. The Dennison, Jr. et al reference discloses an adjustable lens focusing assembly which is manually operable to provide focus adjustment, and lacks the motorizing feature characterizing Applicant's invention. The Sasaki et al reference does not relate to a motorized focusing coupler device, but rather discloses a rotary feed mechanism for a camera wherein a secondary (rear) lens group L2 is

supported by a frame 36 which in turn is supported by a guide means (not shown) for linear movement along the optical axis, with movement of the rear lens group L2 being achieved by operating a d.c. motor which acts through a feed screw that is engaged in a threaded hole in the rear lens group supporting frame 36, whereby operating the motor 32 will cause the rear lens group L2 to move along the optical axis. It is clear that the electromechanical drive provided by Sasaki et al for their rear lens group is quite different from the electromechanical drive which is recited in Applicant's claims.

Given the obvious deficiencies of Dennison, Jr. et al and Sasaki et al, it is appropriate to call attention to the decision of the Court of Appeals for the Federal Circuit in Ecolochem, Inc. v. Southern California Edison Company, decided September 7, 2000, 56 USPQ 2d 1065. In that case the Court indicated at page 1075 that a reference-by-reference limitation-by-limitation analysis was insufficient to deny patentability unless it demonstrates how the prior art teaches or suggests the claimed combination. Also at page 1075, the Court affirmed its previous holding in WMS Gaming, Inc. v International Game Tech., 184 F.3d 1339, 1355, 51 USPQ2d 1385, 1397 (Fed. Cir. 1999), that "the suggestion to combine may be found in explicit or implicit teachings within the references themselves, from the ordinary knowledge of those skilled in the art, or from the nature of the problem to be solved." In the Ecolochem case, the Court rejected the District Court's conclusion of obviousness because there was no evidentiary basis for the finding by the District Court that there was any suggestion, teaching or motivation (underlining supplied) to combine the prior art references cited against the claimed invention. Further, at page 1076, the Court stated that the "rejection cannot be

predicated on the mere identification ... of individual components of claimed limitations. Rather, particular findings must be made as to the reason a skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed."

To summarize, as stated by the CAFC at page 1073 in the Ecolochem case, "When a rejection depends on a combination of prior art references, there must be some teaching, suggestion or motivation to combine the references", and "Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination."

Having in mind law as set forth in the foregoing Ecolochem, Inc. decision, Applicant respectfully submits that the rejection of the original claims on the basis of various combinations of references, as set forth in the Official Action, was not well-founded since there is no motivation in any of the references, to modify the structures of Dennison, Jr. et al and Sasaki et al to achieve structures like those defined by Applicant's claims.

It should be noted that claim 1 has been amended so as to require a reversible electromechanical drive assembly mounted to the housing, and also gear means including a gear disposed in a cavity in the housing engaged with rack gear teeth carried by the lens carrier, whereby the lens carrier may be moved axially by the drive assembly.

Turning now to the specific 103 rejection, Applicant submits that the rejection of claim 1 on the basis of Dennison, Jr. et al and Ohsawa is not believed to be well-founded, particularly in view of the changes made to claim 1. Dennison, Jr. et al do not show a motorized optical coupler device. Also, the element "23" of Dennison, Jr. et al is not a "housing" as

stated by the Examiner. While it is true that Ohsawa discloses in his Fig. 1 a rack 44 and a gear 48 for moving a lens 38, those components are not disclosed as being embodied in a housing which also contains a movable lens. Moreover, there is no requirement or suggestion that the drive assembly disclosed by Ohsawa should or could be disposed so that its gear means is mounted within a cavity in a housing which also has a connecting bore in which a tubular lens carrier is slidable. Furthermore, there is no motivation or suggestion in either Dennison, Jr. et al or Ohsawa to modify either of their structures so as to have a coupler device as defined by claim 1.

The rejection of claims 5, 6, 11 and 15-24 as unpatentable over Dennison, Jr. et al and Ohsawa is believed to deserve reconsideration in view of the fact that those claims have been amended to eliminate the objection of indefiniteness. Claim 5 calls for the worm gear extending through the opening that connects the cavity with the bore. Claim 6 incorporates all of the features of claim 5 but also requires that the output shaft extend parallel of the longitudinal axis of the lens carrier. Claim 7 also depends from claim 5 and calls for the output shaft being disposed at an acute angle to the longitudinal axis of the lens carrier.

Claim 11 also distinguishes from Dennison, Jr. et al and Ohsawa in that it calls for a reversible electric motor that is exterior of and attached to the housing, and gear means within the housing driven by the output shaft of the motor and engaged with the rack of gear teeth for causing movement of the lens transport assembly. This arrangement is novel with Applicant and is not suggested by the references.

Claims 15-19 all depend, directly or indirectly from claim 11 and are believed to be patentable for the same reasons. Additionally, they call for other elements which are not disclosed or suggested by the references.

Claims 20 and 22-24 also have been amended. With respect to claim 20, it has been amended to incorporate some limitations from canceled claim 21. It is believed that as amended, claim 20 distinguishes patentably from Dennison, Jr. et al and Ohsawa, whether considered individually or collectively. Claims 22-24 all depend from claim 20. Claim 22 has been amended to call for a motor support housing attached to the housing, with the motor being contained in the motor support housing. That concept is new with Applicant. Claims 22-24 are believed to be allowable for the same reason as claim 20.

With respect to the rejection of claims 2, 3, 12-14 and 26-27 as unpatentable over Dennison, Jr. et al in view of Ohsawa, further in view of Yonezawa et al, Applicant submits that the rejection is not well-founded since there is no motivation in any of the references to make the combination of references as suggested by the Examiner. In this connection it is one thing to show how the references may be combined to read on a claimed invention, and quite a different thing to demonstrate how the references teach or suggest the specific combination defined by Applicant's claims. The concept of "obvious to provide" is not the standard. The standard is that the prior art must teach or suggest, or provide a motivation to produce, the combination defined by the claims.

The Yonezawa et al reference admittedly discloses the use of a coil spring for providing a restoring force. However, the device of Yonezawa et al lacks gear means for moving the lens carrier and, therefore, their spring serves merely as a restoring force. In contrast, the spring in

Applicant's device is for the purpose of minimizing backlash between the meshing gear teeth so as to accommodate the tolerances of the manufacturing process. In this respect, see page 16, second paragraph, of Applicant's specification for an explanation as to the importance of spring 112. Accordingly, it is respectfully submitted that since Applicant's device already has means for applying an axial force to the lens carrier, i.e., the gear system connecting the motor to the lens carrier, it would not be obvious from Yonezawa et al to add a spring to Applicant's device.

For this reason the rejection of claims 2, 3, 12-14 and 26-27 is not believed to be well-founded and should be withdrawn.

The rejection of claim 4 as unpatentable over Dennison, Jr. et al in view of Ohsawa, further in view of Lucey et al, and the rejection of claim 7 as unpatentable over Dennison, Jr. et al in view of Ohsawa, further in view of Yata et al, also are not believed to be well-founded. In this connection it is to be noted that claim 4 has been amended to avoid the indefiniteness problem. While it might be obvious from Lucey et al to provide windows closing off the open ends of a lens carrier, Lucey et al do not make up for the deficiencies of Dennison, Jr. et al and Ohsawa. With regard to claim 7, the Yata et al reference was cited on the basis of its Fig. 10 which allegedly shows a drive shaft disposed at an acute angle to the longitudinal axis. Applicant respectfully disputes the Examiner's description of Fig. 10. The illustration of the motor M in relation to the gear rack is purely schematic and there is nothing in the application to indicate that it extends at any angle other than 90° to the plane of the gear rack. For these reasons the rejections of claims 4 and 7 should be withdrawn.

Claims 20-23 have been rejected as unpatentable of Sasaki et al. The deficiencies of Sasaki et al have been described above. With specific references to claims 20-23, it should be noted that claim 20 has been amended to recite a motor and gear means, with the motor being mounted to the housing and the gear means being located within the housing and coupling the motor to the lens transport assembly. That concept is not believed to be disclosed by the reference. The specific drive means disclosed by Sasaki et al is different from the drive means recited in claim 20. Accordingly, claims 20, 22 and 23 are believed to be allowable over Sasaki et al.

New claim 27 depends from claim 26 and is believed to be patentable for the same reasons as claim 26 and also because it adds other limitations.

New claims 28 and 29 depend from claims 26 and 1 respectively, and specifically call for a pinion gear and a worm gear. That arrangement is novel with Applicant.

New claims 30-32 are patterned after claim 11 and its supporting claims and are believed to be allowable for the same reasons.

New claims 33-35 are believed to be patentable for the same reason as claim 28, since they also recite a worm gear and a helical pinion gear.

It is believed that the foregoing constitutes a full and complete response to the Official Action. Therefore, prompt and favorable reconsideration is solicited.

Respectfully submitted,

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Nicholas A. Pandiscio
Reg. No. 17,293
Pandiscio & Pandiscio
470 Totten Pond Road
Waltham, MA 02451-1914
Tel. (781) 290-0060
Attorneys for Applicant

okta-14.ama